3.0 Specific Information for Each Emissions Unit

3.1 Introduction

IDAPA 314 Required Standard Application Form and Required Information.

.03 Specific Information for Each Emissions Unit.

The owner or operator shall provide, in an itemized format, all of the information identified in Subsections 314.04 through 314.11 for each emission unit unless the emissions unit is an insignificant activity.

Sections 4.0 through 12.0 of this application are prepared to correspond with IDAPA sections 314.04 through 314.12. Section 4.0 provides emissions calculations and documentation for each emissions unit. Section 5.0 provides a listing of applicable and non-applicable requirements for the facility (regulatory applicability to specific emission units is detailed in Section 10.0). Section 6.0 is for other information that may be necessary to determine the applicability of a requirement. Section 7.0 provides additional descriptions to explain interpretations of nonapplicability. Section 8.0 is for alternate operating scenarios. Section 9.0 describes the current compliance certifications and compliance certification methods per emissions unit basis. Section 10.0 describes methods for demonstrating compliance with each applicable requirement per emissions unit. Section 11.0 identifies trading scenarios. No trading scenarios or alternate emission limits are proposed. Section 12.0 includes any additional information that the facility determines is necessary for defining Tier I operating permit conditions and/or determining compliance with applicable requirements. This section also identifies insignificant emission unit activities.

4.0 Emissions Estimates

4.1 Introduction

IDAPA 314 Required Standard Application Form and Required Information.

04. Emissions

a. Identify and describe all emissions of pollutants for which the source is major and all emissions of regulated air pollutants from each emissions unit. Fugitive emissions shall be included in the application in the same manner as stack emissions, regardless of whether the source category is included in the list of sources contained in the definition of major facility.

b. Emissions rates shall be quantified in tons per year (tpy) or for radionuclides the effective dose equivalent (EDE) in millirem per year and in such additional terms as are necessary to determine compliance consistent with the applicable test method.

c. Identify and describe all points of emissions in sufficient detail to establish the basis for fees and applicability of requirements of the Clean Air Act.

d. To the extent it is needed to determine or regulate emissions, identify and quantify all fuels, fuel use, raw materials, production rates, and operating schedules.

e. *Identify and describe all air pollution control equipment and compliance monitoring devices or activities.*

f. Identify and describe all limitations on source operation or any work practice standards affecting emissions.

g. Provide the calculations on which the information provided under Subsection 314.04.1. through 314.04.i. is based.

Actual emission calculations are derived from the Air Emissions Inventory for calendar year 2005. Potential emission (PTE) calculations are based on individual equipment design criteria, self-imposed limits, or 8,760 hours of operation.

4.2 Abrasive Blasting Emissions

MHAFB operates one permitted bead blaster for stripping paint inside Building 1330. This bead blaster is primarily a self-contained hopper containing a cyclone and tube fabric filters with a single point of entry located outside the building. The emission control for this unit consists of a dust collector filter assembly with a rated efficiency of 99.9 percent for removing particles 1 micron or greater.

MHAFB monitors and maintains records of the hexavalent chromium weight percent of the particulate matter collected. The hexavalent chromium emission limit is 0.137 pound per year for any consecutive 12-month period. Actual and potential emission calculations for the bead blaster are provided in Appendix B-1.

4.3 External Combustion Engine Emissions

MHAFB currently maintains four dual-fuel boilers located within Building 6000 (hospital), three of which are identical Kewanee units rated at 5.23 MMBtu/hr each, and one Hurst unit rated at 1.05 MMBtu/hr. The primary fuel for all four units is natural gas; however, distillate fuel oil is permitted for each unit up to 500 hours annually. Emissions from the three Kewanee units exhaust through a common vertical stack. A sulfur dioxide (SO_2) emission limit of 2.1 tons per any consecutive 12-month period was established for the Kewanee boilers. The Hurst boiler exhausts through a second vertical stack. Currently, no emission control devices are associated with the four hospital boilers.

MHAFB monitors and records the number of hours each boiler combusts distillate fuel oil. Actual emissions from the hospital boilers were based on actual 2005 fuel usage provided by Base personnel from delivery records or metering systems. PTE calculations were based on the design capacity of four hospital boilers. Emission calculations for the hospital boilers are provided in Appendix B-2.

4.4 Internal Combustion Engine Emissions

There are two permitted ICOM sources, the Barrier Flightline Generators (BFG) and Hospital Generators.

4.4.1 Barrier Flightline Generators

MHAFB has four identical gasoline-powered Wisconsin Motor generators located at the end of the flightline runway. Each Barrier Flightline Generator (BFG) has a rated capacity of 65.9 hp. Each BFG will contain a run-time meter limited to operate a maximum of 250 hours per year (hr/yr). Each of the four BFGs are contained within an enclosed structure and exhaust emissions out a horizontal stack. No emission control devices are associated with the BFGs. Particulate matter, PM_{10}, SO_2, NO_x, CO, and VOC emissions from the combined total of four BFGs will not exceed the following emission rates:

TABLE 4.4-1
Potential Barrier Flightline Generator Emission Rate Limits

Source Description	PM tpy	PM_{10} tpy	SO_2 tpy	NO_x tpy	CO tpy	VOC tpy
Four Barrier Flightline Generators	0.024	0.024	0.019	0.19	15.0	0.16

MHAFB monitors and records the number of hours each generator combusts gasoline. Actual emissions from the BFGs were based on actual 2005 fuel usage provided by Base personnel from delivery records or metering systems. PTE calculations were based on the design capacity of the four BFGs. Emission calculations for the BFGs are provided in Appendix B-3.1.

4.4.2 Hospital Generators

MHAFB has three identical 750-kw Caterpillar generators located at the hospital (Building 6000). The hospital generators combust No. 2 distillate fuel oil and are limited to operate a maximum of 500 hr/yr. Each hospital generator exhausts through a separate vertical stack. The combined total generator emission limits are 3.1 tpy SO_2, and 18.1 tpy NO_x. No emission control devices are associated with the hospital generators.

MHAFB monitors and records the number of hours each generator combusts distillate fuel oil. Actual emissions from the hospital generators were based on actual 2005 fuel usage provided by Base personnel from delivery records or metering systems. PTE calculations were based on the design capacity of the three hospital generators. Emission calculations for the hospital generators are provided in Appendix B-3.2.

4.5 Jet Engine Testing

Currently, MHAFB has two locations where Jet Engine Testing is performed, Hush House I (Building 1344) and Hush House II (Building 270). Testing is currently limited to only two engine types, the F-100-PW-220 and F-100-PW-229. MHAFB is requesting operational flexibility to be able to test any engine type that may be on the Base. Tier I jet engine testing permit limits will remain the same and be used as a "bubble limit." MHAFB is proposing to calculate emissions each month, based off each engine type for a cumulative total. The cumulative emission totals will be compared to the permitted emission rate limits to track emissions to the "bubble limit". PM, PM_{10}, SO_2, NO_x, CO, and VOC emissions from combined Hush Houses I and II will not exceed the following emission rates:

TABLE 4.5-1
Permitted Annual Hush House Emission Rate Limits

Source Description	PM tpy	PM_{10} tpy	SO_2 tpy	NO_x tpy	CO tpy	VOC tpy
Hush House I and II Combined	4.0	4.0	1.5	85.0	63.0	13.0

Mobile source emissions from aircraft testing are not required to be included in this Tier I permit renewal. Actual emission calculations are based on the duration of time tested at each power setting. PTE calculations are based on stationary jet engine testing not to exceed 690 hours per any consecutive 12-month period. In addition, testing at the military and afterburner power settings are limited to 103.5 and 75.9 hours per any consecutive 12-month period, respectively. Emission calculations are provided in Appendix B-4.

4.6 Surface Coating

Permitted surface coating operations at MHAFB include: the transportation vehicle spray booth, the aircraft and parts spray booth, and the flightline open-area spraying.

4.6.1 Transportation Paint Booth

The transportation paint booth, located in Building 1100, is an enclosed paint booth that contains a particulate filtration system used to control emissions before exiting outside to the atmosphere. A maximum throughput limit for spray coatings and solvents applied in the spray paint booth is 300 gallons per year. VOC is limited to 4.0 tpy. Actual and potential emission calculations for the transportation paint booth are provided in Appendix B-5.1.

4.6.2 Aircraft Paint Booth

The aircraft paint booth (large paint booth), located in Building 1330, consists of an enclosed structure used to control emissions while spray coating aircraft. Particulates and VOC emissions generated during painting activities are drawn through the paint booth and pass through a series of filters and activated carbon adsorption banks to remove PM and VOCs before exhausting into the atmosphere. For the purpose of PM emission calculations, 45 percent transfer efficiency from the HVLP spray guns and 97 percent filter removal efficiency are used. For VOC emissions, 90 percent activated carbon adsorption removal efficiency is used. Throughput limits for the aircraft paint booth are 684 gallons per day (gpd) or 1,250 gallons per any consecutive 12-month period. Emission calculations for the aircraft paint booth are provided in Appendix B-5.2.

4.6.3 Aircraft Parts Paint Booth

The aircraft parts paint booth (small paint booth) also located in Building 1330 contains a filter bank used to control emissions while surface coating various equipment parts. Fiber filters are used to control particulate matter emissions with an assumed 97 percent filter removal efficiency. Throughput limits for the aircraft parts paint booth are 140 gpd or 350 gallons per any consecutive 12-month period. Emission calculations for the aircraft parts paint booth are provided in Appendix B-5.3.

4.6.4 Flightline Open-Area Spraying

MHAFB periodically requires open-air spray painting operations. Open-air spray painting activities are usually conducted at aircraft ramps, aprons, open hangars, and static display aircraft for minor touch-up repair. Throughput limits for flightline open-air spraying are 16.1 gpd and 300 gallons per any consecutive 12-month period. In addition, VOC emissions from open-air spray painting activities are limited to 1.5 tpy. Emission controls for open-air spray painting require HVLP spray guns. Emission calculations for the flightline open-area spraying are provided in Appendix B-5.4

.

4.7 Fugitive Sources

MHAFB has two primary sources of fugitive dust; landfill operations, and driving on paved and unpaved roads.

4.7.1 Landfill Operations

One active landfill is located in the southwest corner of the Base. Landfill operations include dozing and grading activities for compressing MSW and applying daily cover. Emission calculations are based on fugitive dust generated from moving topsoil or other earthen materials during daily operations. Dozing, scraping, and grading activities are based on 2,340 annual hours of operation (9 hours per day, 5 days per week, 52 weeks per year).

The inactive B Street Landfill ceased receiving refuse in 1969 and was covered and revegetated in 1994. VOC emissions are considered negligible for the B Street Landfill and are not included as part of this Tier I renewal.

The active landfill received approximately 2,718 megagrams of MSW in calendar year 2005. The EPA Landgem model was used to estimate VOC emissions emanating from the active landfill. Emission calculations for the landfill operations are provided in Appendix B-6.1.

4.7.2 Paved and Unpaved Roads

The paved and unpaved roads within MHAFB are a contributor of fugitive dust. The variety of vehicles that commonly enter the site range from personal automobiles to large freight trucks. The primary reason for automobile traffic on the Base is in support of Air Force operations, as well as living accommodations for Base personnel.

Emission calculations for paved and unpaved roads can be found in Appendix B-6.2. Assume that actual paved and unpaved road emission estimates are equal to potential emission estimates.

4.8 Emission Estimates Summary

The MHAFB potential emission estimates are summarized in Table 4.8-1. Actual emission estimates are based on the 2005 Air Emissions Inventory summarized in Table 4.8-2.

TABLE 4.8-1
Potential Emission Estimates Summary for Calendar Year 2005

Emission Sources	Type	PM_{10} ton/yr	NO_X ton/yr	SO_2 ton/yr	CO ton/yr	VOC ton/yr	HAPs ton/yr
Abrasive Blasting	Stationary	2.57 E-04					6.9 E-05
Aboveground Storage Tanks (ASTs)	Stationary					3.74 E+00	3.2 E-01
Degreasers	Stationary					2.17 E+00	
External Combustion Sources (Unpermitted)	Stationary	6.1 E+00	7.3 E+01	1.9E+00	5.56 E+1	4.4 E+00	1.5 E+00
Hospital Boilers (Permitted)	Stationary	5.4 E-01	7.2 E+00	2.2 E+00	5.7 E+00	3.7 E-01	1.19 E-01
Internal Combustion Sources (Unpermitted)	Stationary	3.3 E+00	5.49 E+01	2.9 E+00	1.21 E+01	7.4 E+00	4.5 E-02
Internal Combustion Sources (Permit Limits)							
Barrier Flightline Generators	Stationary	2.4 E-02	1.9 E-01	1.9 E-02	1.5 E+01	1.6 E-01	7.45 E-02
Hospital Generators	Stationary	5.3 E-01	1.81 E+01	3.1 E+00	4.15 E+00	5.3E-01	7.0 E-03
Fuel Cell Maintenance	Stationary					4.2 E-02	5.8 E-03
Fuel Dispensing	Stationary					3.65 E+00	3.2 E-01
Fuel Loading	Stationary					1.03 E+00	8.6 E-02
Jet Engine Testing	Stationary	4.0 E+00	8.5 E+01	1.5 E+00	6.3 E+01	1.3 E+01	4.6 E-01
Aircraft Paint Booth	Stationary	7.8 E-02				1.5 E-02	2.27 E-02
Aircraft Parts Paint Booth	Stationary	4.4 E-02				8.8 E-03	2.48 E-02
Flightline Open-Area Spraying	Stationary	2.8 E-03				1.5 E+00	2.2 E-03
Transportation Paint Booth	Stationary					4.0 E+00	4.0 E-04
Underground Storage Tanks (USTs)	Stationary					8.8 E-02	8.7 E-03
Subtotal Stationary		**1.5 E+01**	**2.4 E+02**	**1.2 E+01**	**1.6 E+02**	**4.2 E+01**	**3.0 E+00**
Bowsers	Fugitive					4.2 E-04	
Turbine Aerospace Ground Equipment (AGE)	Fugitive	4.0 E-02	5.8 E-01	9.0 E-02	2.31 E+00	3.0 E-02	6.6 E-04

TABLE 4.8-1
Potential Emission Estimates Summary for Calendar Year 2005

Emission Sources	Type	PM_{10} ton/yr	NO_X ton/yr	SO_2 ton/yr	CO ton/yr	VOC ton/yr	HAPs ton/yr
Construction/Demolition	Fugitive	3.0 E-01					
Deicing	Fugitive						3.8 E-01
Explosive Ordnance Disposal (EOD)	Fugitive				8.5 E-02		5.5 E-04
Fire Training	Fugitive	1.93 E+00	1.0 E-01		2.95 E+00	5.83 E+00	7.0 E-02
Landfill	Fugitive	9.09 E+00			2.2 E-01		3.6 E-01
Miscellaneous Chemicals	Fugitive					9.7 E-01	1.1 E+00
Oil Water Separator (OWS)	Fugitive					3.8 E-03	1.5 E-06
Pesticide/Herbicide	Fugitive					1.7 E-02	1.6 E-02
Remediation	Fugitive					2.49 E+00	1.8 E-01
Paved Roads	Fugitive	9.67 E+01					2.75 E-04
Unpaved Roads	Fugitive	3.74 E+00					4.47 E-05
Small Arms Range	Fugitive				1.8E-01		5.3 E-02
Spills	Fugitive					2.27 E+00	1.4 E-01
Spills (Fuel Supply)	Fugitive					1.3 E-02	1.3 E-03
Welding	Fugitive	5.8 E-03					4.9 E-04
Woodworking	Fugitive	3.02 E+00					
Waste Water Treatment Plant (WWTP)	Fugitive					4.3 E-02	2.9 E-02
Subtotal Fugitive		**1.2 E+02**	**6.8 E-01**	**9.0 E-02**	**5.7 E+00**	**1.2 E+01**	**2.3 E+00**
Total		**1.3 E+02**	**2.4 E+02**	**1.2 E+01**	**1.6 E+02**	**5.4 E+01**	**5.3 E+00**

TABLE 4.8-2
Actual Emission Estimates Summary for Calendar Year 2005

Emission Sources	Type	PM_{10} ton/yr	NO_X ton/yr	SO_2 ton/yr	CO ton/yr	VOC ton/yr	HAPs ton/yr
Abrasive Blasting	Stationary	1.19 E-04					8.5 E-07
Aboveground Storage Tanks (ASTs)	Stationary					3.74 E+00	3.2 E-01
Degreasers	Stationary					5.2 E-01	
External Combustion Sources (Total)	Stationary	1.34 E+00	1.74 E+01	2.5 E-01	1.24 E+01	9.7 E-01	3.3 E-01
Hospital Boilers	Stationary	7.37 E-02	9.72 E-01	8.2 E-03	8.15 E-01	5.34 E-02	1.85 E-02
Internal Combustion Sources (Total)	Stationary	3.6 E-01	1.15 E+01	3.5 E-01	6.65 E+00	5.2 E-01	6.4 E-03
Barrier Flightline Generators	Stationary	6.41 E-03	5.24 E-02	5.26 E-03	4.06 E+00	4.43 E-02	9.0 E-03
Hospital Generators	Stationary	1.36 E-01	8.13 E+00	1.37 E-01	1.86 E+00	2.17 E-01	3.55 E-03
Fuel Cell Maintenance	Stationary					2.9 E-02	3.9 E-03
Fuel Dispensing	Stationary					2.45 E+00	2.0 E-01
Fuel Loading	Stationary					6.8 E-01	5.7 E-02
Jet Engine Testing	Stationary	8.5 E-01	20.0E+00	3.0 E-01	10.63 E+00	2.24 E+00	1.3 E-01
Aircraft Paint Booth	Stationary	1.86 E-02				3.63 E-03	5.61 E-03
Aircraft Parts Paint Booth	Stationary	1.06 E-02				2.1 E-03	5.89 E-03
Flightline Open-Area Spraying	Stationary	6.76 E-04				3.51 E-02	6.8 E-04
Transportation Paint Booth	Stationary					4.17 E-03	9.0 E-05
Underground Storage Tanks (USTs)	Stationary					8.8 E-02	8.7 E-03
Subtotal Stationary		**2.8 E+00**	**5.8 E+01**	**1.05 E+00**	**3.6 E+01**	**11.6 E+00**	**1.1 E+00**

Bowsers	Fugitive					4.2 E-04	
Turbine Aerospace Ground Equipment (AGE)	Fugitive	2.8 E-02	3.8 E-01	6.0 E-02	1.54 E+00	1.9 E-02	4.4 E-04
Construction/Demolition	Fugitive	3.0 E-01					
Deicing	Fugitive						9.1 E-02
Explosive Ordnance Disposal (EOD)	Fugitive				8.5 E-03		5.5 E-05
Fire Training	Fugitive	4.6 E-01	2.4 E-02		7.0 E-01	1.39 E+00	1.7 E-02
Landfill	Fugitive	2.16 E+00			5.3 E-02		8.5 E-02
Miscellaneous Chemicals	Fugitive					6.5 E-01	7.3 E-01
Oil Water Separator (OWS)	Fugitive					8.98 E-04	3.5 E-07
Pesticide/Herbicide	Fugitive					1.0 E-02	9.6 E-03
Remediation	Fugitive					1.24 E+00	8.8 E-02
Paved Roads	Fugitive	9.67 E+01					2.75 E-04
Unpaved Roads	Fugitive	3.74 E+00					4.47 E-05
Small Arms Range	Fugitive				1.8 E-02		5.2 E-03
Spills	Fugitive					5.4 E-01	3.3 E-02
Spills (Fuel Supply)	Fugitive					1.3 E-02	1.3 E-03
Welding	Fugitive	1.4 E-03					1.2 E-04
Woodworking	Fugitive	9.5 E-01					
Waste Water Treatment Plant (WWTP)	Fugitive					4.3 E-02	2.9 E-02
Subtotal Fugitive		**1.0 E+02**	**4.0 E-01**	**6.0 E-02**	**2.3 E+00**	**3.9 E+00**	**1.1 E+00**
Total		**102.8 E+00**	**58.4 E+00**	**1.65 E+00**	**38.3 E+00**	**15.5 E+00**	**2.2 E+00**

5.0 Applicable Requirements

5.1 Introduction

IDAPA 314. Required Standard Application Form and Required Information.

05. Applicable Requirements.

a. Cite and describe all applicable requirements affecting the emission unit; and

b. Describe or reference all methods required by each applicable requirement for determining the compliance status of the emissions unit with the applicable requirement, including any applicable monitoring.

Table 5.1-1 of this application provides a summary of the significant State and Federal regulations that apply to emissions units at MHAFB. A detailed list of all applicable State and Federal requirements affecting MHAFB is included in Section 9.0. Section 9.0 also contains the compliance certification, the method of compliance, compliance status, and information relating to compliance plans. Section 10.0 contains the specific compliance plans for demonstrating continuous compliance with the applicable regulations.

TABLE 5.1-1
Significant Applicable Regulations Summary by Emissions Unit

Emissions Unit	Control Device	Applicable Regulations	Applicable To/Notes
Facility-Wide	None	IDAPA 58.01.01.650-651	Control of Fugitive Dust
		IDAPA 58.01.01.775-776	Control of Odors
		IDAPA 58.01.01.625	Visible Emissions Limits
		IDAPA 58.01.01.130-136	Excess Emissions Event
		IDAPA 58.01.01.600-616	Control of Open Burning
		IDAPA 58.01.01.157	Test Methods and Procedures, Compliance Testing
		IDAPA 58.01.01.676-677	Fuel Burning Equipment—PM Standards for New Sources
		IDAPA 58.01.01.728	Sulfur in Fuel Limitations
		40 CFR §60, Subpart Cc	Administrative Reporting Requirements
		40 CFR §61, Subpart M	National Emission Standard for Asbestos
		40 CFR §68	Chemical Accident Prevention
		40 CFR §82, Subpart F	Recycling and Emissions Reduction
		40 CFR §63, Subpart GG	National Emission Standard for Aerospace Manufacturing and Rework Facilities
Hospital Boilers	None	Permit Condition 3.1.1, PTC No. P-040026	SO_2—ton per year limit
		IDAPA 58.01.01.676-677	Fuel Burning Equipment—PM Standards for New Sources
		IDAPA 58.01.01.625	Visible Emissions Limits
Jet Engine Testing	None	Permit Condition 4.1, PTC No. P-040026	Criteria—ton per year limit
		IDAPA 58.01.01.625	Visible Emissions Limits
Aircraft and Aircraft Parts Surface Coating Spray Booths	LPB 1330 – PM filters, carbon adsorption filters	IDAPA 58.01.01.625	Visible Emissions Limits
		IDAPA 59.01.01.701	PM—Process Weight Limitation
	SPB 1330 – PM filters		
Flight Line Area Spray Painting	HVLP spray guns	Permit Condition 6.1, PTC No. P-040026	VOC—ton per year limit
		IDAPA 58.01.01.625	Visible Emissions Limits

TABLE 5.1-1
Significant Applicable Regulations Summary by Emissions Unit

Emissions Unit	Control Device	Applicable Regulations	Applicable To/Notes
Vehicle Spray Paint Booth	PM filters	Permit Condition 7.2, PTC No. P-040026	VOC—ton per year limit
		IDAPA 58.01.01.625	Visible Emissions Limits
		IDAPA 59.01.01.701	PM—Process Weight Limitation
Bead-Blasting Unit – Building 1330	Dust Collector (Hopper)	Permit Condition 8.1, PTC No. P-040026	Cr^{+6}—pound per year limit
		IDAPA 58.01.01.625	Visible Emissions Limits
		IDAPA 59.01.01.701	PM—Process Weight Limitation
Emergency Generators	None	Permit Condition 10.1, PTC No. P-040025	SO_2 and NO_x—ton per year limit
		IDAPA 58.01.01.625	Visible Emissions Limits
Barrier Flightline Generators	None	Permit Condition 2.3, PTC No. P-060048, Facility Draft	PM_{10}—pound per year limit
		IDAPA 58.01.01.625	Visible Emissions Limits
Refer to Section 12.0	None	IDAPA 58.01.01.317	Insignificant Activities

6.0 Other Requirements

6.1 Introduction

IDAPA 314. Required Standard Application Form and Required Information.

06. Other Requirements.

Other specific information that may be necessary to determine the applicability of, implement or enforce any requirement of the Act, these rules, 42 U.S.C Sections 7401 through 7671q or federal regulations.

No information other than that provided in other sections of this application is necessary to determine applicability of any requirements.

7.0 Proposed Exemptions and Determinations of Nonapplicability

7.1 Introduction

IDAPA 314. Required Standard Application Form and Required Information.

.07 Proposed Determinations of Nonapplicability.

Identify requirements for which the applicant seeks a determination of nonapplicability and provide an explanation of why the requirement is not applicable to the Tier I source.

No information other than that provided in other sections of this application is necessary to determine applicability of any requirements. MHAFB requests that IDEQ confirm the non-applicability of the following regulatory programs:

Prevention of Significant Deterioration (PSD) 40 CFR Part 52.21. The PSD rules found at 40 CFR 52.21 and IDAPA 58.01.01.205 do not apply to MHAFB, as the regulated pollutants in this section, after controls, do not equal or exceed the major stationary source threshold of 250 tons per year (40 CFR 52.21(b)(1)(i)(b).

Risk Management Plan (RMP) Chemical Accident Prevention Provisions 40 CFR Part 68. The RMP rules do not apply, as no regulated toxic or flammable substances are present in a process at MHAFB above the thresholds found at 40 CFR 68.130.

New Source Performance Standards (NSPS) 40 CFR Part 60—Subpart Dc. Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. The four hospital boilers are all less than the 10 mmBTU/hour heat input threshold for Subpart Dc applicability.

New Source Performance Standards (NSPS) 40 CFR 110a—Subpart Ka. Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984. Three jet fuel tanks that contain a storage capacity greater than 40,000 gallons are located at MHAFB. Each jet fuel storage tank was constructed prior to May 18, 1978, and has not been modified or reconstructed, and not subject to Subpart Ka. In addition, JP-8 has a vapor pressure less than 3.5 Kpa.

New Source Performance Standards (NSPS) 40 CFR 110b—Subpart Kb. Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. MHAFB contains four tanks with storage capacities between 75 and 151 m^3 with vapor pressures less than 15 kPa. These tanks are exempt from all Subpart Kb requirements, including notification and recordkeeping. Notification and recordkeeping requirements were also eliminated for tanks with capacities less than 75 m^3.

NSPS 40 CFR Part 60 Subpart WWW—Emission Standards for Municipal Waste Landfills. The onsite MSWLF contains MSW below the threshold design capacity of 2.5 million mega grams. Therefore, it is not subject to NSPS Subpart WWW.

NSPS 40 CFR Part 60 Subpart GG—Standards of Performance for Stationary Gas Turbines. The four flight line generators are not subject to this standard, as they are not gas turbines.

NSPS 40 CFR Part 60 Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. A non-applicability determination of this subpart will be made during review of the Barrier Flightline Generator PTC.

Part 63—Emission Standards for Hazardous Air Pollutants. The source is classified as an area (minor) source for emissions of hazardous air pollutants. The NESHAPs in Part 63 do not apply for below-threshold purposes and may not apply due to specific applicability purposes.

40 CFR Part 63 Subpart GG—Aerospace Manufacturing and Rework Facilities

40 CFR Part 63 Subpart PPPPP—Engine Test Cells/Stands

40 CFR Part 63 Subpart DDDDD—Industrial, Commercial and Institutional Boilers and Process Heaters

40 CFR Part 63 Subpart ZZZZ—Reciprocating Internal Combustion Engines

8.0 Alternative Operating Scenarios

8.1 Introduction

IDAPA 314. Required Standard Application Form and Required Information.

08. Alternative Operating Scenarios

a. Identify all requested alternative operating scenarios.

b. Provide a detailed description of all requested alternative operating scenarios. Include all the information required by Section 314 that is relevant to the alternative operating scenario.

Following are the Alternative Operating Scenarios included in this Tier I Permit Renewal Application. Should any of the Scenarios be implemented, a notation as to the date and time of such implementation will be recorded and kept on file in a memorandum of record. A similar notation will be made when an Alternative Operating Scenario is terminated. Each of the following scenarios presented can be exercised independently or cumulatively.

8.1.1 Alternative Scenario 1: Jet Engine Testing Bubble Limit

Jet Engine Testing is currently being performed in Hush House I and Hush House II for two types of aircraft engines, Model Nos. F100-PW-220 and F100-PW-229. Testing of engines in an aircraft is usually performed in Hush House II, building 270. If the engine is removed from the aircraft and affixed to a test stand, then the engine is subject to the terms and conditions of the Tier I operating permit. Testing of engines affixed to a stand is usually performed in Hush House I, building 1344.

MHAFB is requesting operational flexibility to test any engine type that may be on the Base if mission requirements change. MHAFB proposes to remove permit condition 4.3. MHAFB will calculate emissions each month based off each engine type for a cumulative total to demonstrate that emission rate limits are not exceeded. The current annual emission rate limits in the Tier I permit will remain the same and be used as a "bubble limit."

Source Description	PM T/yr	PM_{10} T/yr	SO_2 T/yr	NO_x T/yr	VOC T/yr	CO T/yr
Hush House I and II combined	4.0	4.0	1.5	85	13	63

8.1.2 Alternative Scenario 2: Operational Changes and/or Addition of Devices Exempt from Permits to Construct

MHAFB may change operations of existing sources and/or install various emitting devices that are exempt from the requirement to obtain a PTC per IDAPA 58.01.01.201. These changes or new devices are exempt from the requirement to obtain a PTC either because the changes or additions are not modifications per IDAPA 58.01.01.006.58 or they are

categorically exempt per IDAPA 58.01.01.221-222. If such changes or additions are made, and the changes or additions are not insignificant activities per either IDAPA 58.01.01.317.01.a and/or IDAPA 58.01.01.317.b, the changes or additions will be made, recorded, and kept on file in a memorandum of record. Changes that are insignificant activities will be made without notation.

8.1.3 Alternative Scenario 3: President Determines Operations in Excess of Operating Permit Limits are of Paramount Importance to the United States

In the event that the President of the United States determines it is of paramount interest to the United States that operations of MHAFB require an exemption from any or all permit requirements; in accordance with the Clean Air Act Section 118(b), (42 USC 7401 et seq., as last amended by P.L. 101-549, November 15, 1990), the President may grant an exemption from any or all permit requirements for a period of 1 year, renewable indefinitely. In addition, the President may exempt requirements from any or all military weaponry, equipment, aircraft, vehicles or any other property operated by MHAFB for periods of 3 years, renewable indefinitely. MHAFB will conduct operations consistent with such exemptions, if the President makes such determinations.

9.0 Compliance Certifications

9.1 Compliance Certification Rule

IDAPA 314. Required Standard Application Form and Required Information.

09. Compliance Certifications.

a. Provide a compliance certification regarding the compliance status of each emissions unit at the time the application is submitted to the Department that:

i Identifies all applicable requirements affecting each emissions unit.

ii Certifies the compliance status of each emissions unit with each of the applicable requirements.

iii Provides a detailed description of the method(s) used for determining the compliance status of each emissions unit with each applicable requirement, including a description of any monitoring, recordkeeping, reporting and test methods that were used. Also provide a detailed description of the method(s) required for determining compliance.

iv Certifies the compliance status of the emissions unit with any applicable enhanced monitoring requirements.

v Certifies the compliance status of the emission unit with any applicable enhanced compliance certification requirements.

vi Provides all other information necessary to determining the compliance status of the emissions unit.

b. Provide a schedule for submission of compliance certifications during the term of the Tier I operating permit. The schedule shall require compliance certification to be submitted no less frequently than annually, or more frequently if specified by the underlying applicable requirement or by the Department.

9.2 Applicability Review and Compliance Certification Summary

This section provides the information necessary to fulfill the requirements listed above on a per emissions unit basis. Section 9.0 also contains the compliance certification, the method of compliance, compliance status, and information relating to compliance plans. Table 9.2-1 summarizes facility-wide compliance certification. For each applicable requirement, the emissions will continue to comply with the applicable requirement (IDAPA 58.01.01.314.10(a)i).

TABLE 9.2-1
Facility Wide Applicability, Compliance Certification, and Method of Compliance at Time of Application (IDAPA 58.01.01 Rule 314.10(a)

Emissions Unit	Citation	Applicable Requirements	In Compliance	Method Used to Determine Compliance
Facility Wide	IDAPA 58.01.01.123	Certification of Documents	X	Documents submitted to the Department contain a certification in accordance with the requirements of this rule.
Facility Wide	IDAPA 58.01.01.124	Truth, Accuracy, and Completeness of Documents	X	Documents submitted to the Department are truthful, accurate, and complete based on information and belief formed after reasonable inquiry.
Facility Wide	IDAPA 58.01.01.125	False Statements	X	Facility Wide
Facility Wide	IDAPA 58.01.01.126	Tampering	X	To the best knowledge of MHAFB, no person has knowingly tampered with a monitoring device or method required under any permit issued to MHAFB.
Facility Wide	IDAPA 58.01.01.130-136	Startup, Shutdown, Scheduled Maintenance, Safety Measures, Upset and Breakdown (SSSMSMU&B)	X	SSSMSMU&B corrective actions, notification, records, and reporting shall be performed for applicable sources.
Facility Wide	IDAPA 58.01.01.157	Test Methods and Procedures	X	Sampling and analytical procedures required by the Department are conducted in accordance with sampling and analytical procedures approved by the Department.
Facility Wide	IDAPA 58.01.01.300-316	Procedures and Requirements for Tier I operating Permits	X	The submission of this permit application demonstrates compliance with this rule.
Facility Wide	IDAPA 58.01.01.317	Insignificant Activities	X	The submission of this permit lists those activities at MHAFB that are insignificant. The basis for the selection of the insignificant emissions sources is detailed in Section 12.2 of this application.
Facility Wide	IDAPA 58.01.01.380-397	Changes to Tier I Operating Permits	X	No alterations, changes, modifications, or reopenings of the Tier I operating permit are being requested as part of this permit application.
Facility Wide	IDAPA 58.01.01.591	National Emission Standards for Hazardous Air Pollutants.	X	MHAFB is not subject to NESHAP standards.
Facility Wide	IDAPA 58.01.01.603	Open Burning—General Restrictions	X	MHAFB will not conduct open burning in categories other than those allowed in Sections 606 – 617.

TABLE 9.2-1
Facility Wide Applicability, Compliance Certification, and Method of Compliance at Time of Application (IDAPA 58.01.01 Rule 314.10(a)

Emissions Unit	Citation	Applicable Requirements	In Compliance	Method Used to Determine Compliance
Facility Wide	IDAPA 58.01.01.609	Training Fires	X	MHAFB will notify the Department prior to igniting any training fires. Training fires shall not be allowed to smolder after the training session has terminated.
Facility Wide	IDAPA 58.01.01.625	Visible Emissions	X	Applicable to regulated emission sources of particulates. Compliance methods are described for each emissions group below.
Facility Wide	IDAPA 58.01.01.650-651	Rules for Control of Fugitive Dust—General Rules	X	- Regular watering or application of dust suppressant on unpaved roads, - Applying gravel to unpaved roads, - Sweeping paved roads, - Covering of trucks.
Facility Wide	IDAPA 58.01.01.676	Standards for New Sources	X	New Sources are identified for applicable air regulatory obligations by MHAFB staff.
Facility Wide	IDAPA 58.01.01.677	Standards for Minor and Existing Source	X	Minor and existing sources are identified for applicable air regulatory obligations by MHAFB staff.
Facility Wide	IDAPA 58.01.01.728	Distillate Fuel Oil 01. ASTM Grade 1. ASTM Grade 1 fuel oil—0.3 percent by weight 02. ASTM Grade 2. ASTM Grade 2 fuel oil—0.5 percent by weight	X	MHAFB complies with the sulfur grade percentages by weight in its fuel purchases. Records are kept demonstrating compliance with sulfur in fuel limitations.
Facility Wide	IDAPA 58.01.01.776	Rules for Control of Odors—General Rules	X	The MHAFB is not a known source of odors. Should odors be emitted into the atmosphere in such quantities as to cause air pollution, reasonable steps shall be taken to prevent the release of odors as may be proposed by the applicant and approved by the IDEQ. Records of any odor complaints shall be maintained.
Emissions Group 1: Kewanee and Hurst Hospital Boilers	Tier I, T1-060047 Conditions 3.1-3.2.7	Emission limits, operating requirements, monitoring, and recordkeeping requirements as described in the permit conditions	X	Adherence to Tier I Conditions 2.11, 3.1.6-3.1.8, and 3.2.6-3.2.7 or as described in the MHAFB Tier I issued by IDEQ.

TABLE 9.2-1
Facility Wide Applicability, Compliance Certification, and Method of Compliance at Time of Application (IDAPA 58.01.01 Rule 314.10(a)

Emissions Unit	Citation	Applicable Requirements	In Compliance	Method Used to Determine Compliance
Emissions Group 2 Jet Engine Testing: Hush House I & II	Tier I, T1-060047 Conditions 4.1-4.7	Emission limits, operating requirements, monitoring, and recordkeeping requirements as described in the permit conditions	X	Adherence to Tier I Conditions 4.6-4.7 or as described in the MHAFB Tier I issued by IDEQ.
Emissions Group 3: Aircraft and Aircraft Parts Surface Coating Spray Booths	Tier I, T1-060047 Conditions 5.1-5.14	Emission limits, operating requirements, monitoring, and recordkeeping requirements as described in the permit conditions	X	Adherence to Tier I Conditions 2.11 and 5.10-5.14 or as described in the MHAFB Tier I issued by IDEQ.
Emissions Group 4: Flight Line Area Spray Painting	Tier I, T1-060047 Conditions 6.1-6.5	Emission limits, operating requirements, monitoring, and recordkeeping requirements as described in the permit conditions	X	Adherence to Tier I Conditions 2.11 and 6.5 or as described in the MHAFB Tier I issued by IDEQ.
Emissions Group 5: Vehicle Spray Painting Booth	Tier I, T1-060047 Conditions 7.1-7.9	Emission limits, operating requirements, monitoring, and recordkeeping requirements as described in the permit conditions	X	Adherence to Tier I Conditions 7.8-7.9 or as described in the MHAFB Tier I issued by IDEQ
Emissions Group 6: Bead Blasting Unit – Building 1330	Tier I, T1-060047 Conditions 8.1-8.8	Emission limits, operating requirements, monitoring, and recordkeeping requirements as described in the permit conditions	X	Adherence to Tier I Conditions 8.7-8.8 or as described in the MHAFB Tier I issued by IDEQ.
Emissions Group 8: Hospital Emergency Generators	Tier I, T1-060047 Conditions 10.1-10.7	Emission limits, operating requirements, monitoring, and recordkeeping requirements as described in the permit conditions	X	Adherence to Tier I Conditions 10.6-10.7 or as described in the MHAFB Tier I issued by IDEQ.

10.0 Compliance Certification During Permit Term Summary

10.1 Compliance Certification Rules

IDAPA 314. Required Standard Application Form and Required Information.

10. Compliance Plans.

a. Provide a compliance description as follows:

i For each applicable requirement with which the emissions unit is in compliance, state that the emissions unit will continue to comply with the applicable requirement.

ii. For each applicable requirement that will become effective during the term of the Tier I operating permit that does not contain a more detailed schedule, state that the emissions unit will meet the applicable requirement on a timely basis.

iii. For each applicable requirement that will become effective during the term of the Tier I operating permit that contains a more detailed schedule, state that the emissions unit will comply with the applicable requirement on the schedule provided in the applicable requirement.

iv. For each applicable requirement with which the emission unit is not in compliance, state that the emissions unit will be in compliance with the applicable requirement by the time the Tier I operating permit is issued or provide a compliance schedule in accordance with Subsection 314.10.b.

b. All compliance schedules shall:

i. Include a schedule of remedial measures leading to compliance, including an enforceable sequence of actions and specific dates for achieving milestones and achieving compliance.

ii. Incorporate the terms and conditions of any applicable consent order, judicial order, judicial consent decree, administrative order, settlement agreement or judgment.

iii. Be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

c. Provide a schedule for submission to the Department of periodic progress reports no less frequently than every six (6) months or at a more frequent period if one (1) is specified in the underlying applicable requirement or by the Department.

The following text, in combination with Sections 9.0 and 10.2 of this application, provides the information necessary to fulfill the requirements of IDAPA 314.10. All compliance plans not listed in this section are otherwise included in Section 9.0.

i. For each applicable requirement with which an emissions unit is in compliance, the emissions unit will continue to comply with the applicable requirement. Compliance with applicable requirements is described in Section 9.0.

ii. For each applicable requirement that will become effective during the term of the Tier I operating permit that contains a more detailed schedule, the emissions unit will meet the applicable requirement on a timely basis.

iii. For each applicable requirement that will become effective during the term of the Tier I operating permit that contains a more detailed schedule, the emissions unit will comply with the applicable requirement on the schedule provided in the applicable requirement.

iv. For each applicable requirement with which an emissions unit is not in compliance, the emissions unit will be in compliance with the applicable requirement by the time the Tier I operating permit is issued or provide a compliance schedule in accordance with Section 314.10.b.

Applicable requirements that are one time requirements are not included in the application (provided the requirement has been fulfilled). One example is the requirement to notify the Department of the date of startup of a piece of equipment.

10.2 Compliance Plans Summary

This section provides the information necessary to comply with the applicable requirements that will become or have become effective during the term of the Tier I operating permit. In accordance with IDAPA 58.01.01.209.05.a.iv, the applicable requirements in the Barrier Flightline Generator PTC will be incorporated into the Tier I operating permit renewal. Table 10.2-1 summarizes the compliance certification plan for the Barrier Flightline Generators. All compliance plans not listed in this section are otherwise included in Section 9.0.

TABLE 10.2-1
Compliance Certification During Permit Term

Emissions Unit	Citation	Applicable Requirements	Proposed Compliance Demonstration Method	Frequency of Certification
Barrier Flightline Generators	Facility PTC Draft, P-060048 Condition 2.3	**Emissions Limit.** PM_{10} emissions from each barrier flight line generator exhaust vent/stack shall not exceed 12 pounds per any consecutive 12-month period.	Each of the four barrier flightline generators will contain an hourly meter that records the hours when the generator operates.	Monthly
Barrier Flightline Generators	Facility PTC Draft, P-060048 Condition 2.4	**Opacity Limit.** Emissions from each generator exhaust vent/stack shall not exceed 20 percent opacity for more than 3 minutes in any 60-minute period. Opacity shall be determined as required per IDAPA 58.01.01.625.	Adherence to Tier I Conditions 2.11	Ongoing

TABLE 10.2-1
Compliance Certification During Permit Term

Emissions Unit	Citation	Applicable Requirements	Proposed Compliance Demonstration Method	Frequency of Certification
Barrier Flightline Generators	Facility PTC Draft, P-060048 Condition 2.4	**Operating Hours.** Each barrier flight line generator shall not operate more than 250 hours per any consecutive 12-month period.	MHAFB will calculate the total operating hours for each barrier flight line generator. Annual operating hours will be determined by summing monthly operating hours per any consecutive 12-month period.	Monthly and annually

On December, 19, 2006, MHAFB submitted a certified letter to IDEQ requesting PTC revisions in accordance with IDAPA 58.01.01.209.04. Existing Tier I permit conditions were addressed with requested changes to demonstrate compliance with each applicable requirement. A copy of the letter is included in Appendix C.

11.0 Trading Scenarios

11.1 Introduction

IDAPA 314. Required Standard Application From and Required Information.

11. Trading Scenarios.

a. Identify all requested trading scenarios, including alternative emissions limits (bubbles) authorized by Section 440.

b. Provide a detailed description of all requested trading scenarios. Include all the information required by Section 314 that is relevant to the trading scenario and all the information required by Section 440, if applicable. Emissions trades must comply with all applicable requirements.

c. Provide proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. Emissions trades involving emissions units for which the emissions are not quantifiable or for which there are no replicable procedures to enforce the emissions trade shall not be approved.

There are no trading scenarios presented in this application.

12.0 Additional Information

12.1 Introduction

IDAPA 314. Required Standard Application From and Required Information.

12. Additional Information.

Provide all additional information that the Department determines is necessary for the Department to efficiently and effectively perform its functions. Such functions include, but are not limited to, determining the applicability of requirements for all regulated air pollutants, determining compliance with applicable requirements, developing or defining Tier I operating permit terms and conditions, defining all approved alternative operating scenarios, evaluating excess emission procedures or making all necessary evaluations and determinations.

12.2 Insignificant Emissions

This section contains the insignificant emissions units (IEUs) at MHAFB. IDAPA 58.01.01.317.01 specifies the applicability criteria for identifying insignificant activities. *This Section contains the criteria for identifying insignificant activities for the purposes of the Tier I operating permit program. Notwithstanding any other provision of this rule, no emission unit or activity subject to an applicable requirement shall qualify as an insignificant emission unit or activity. Applicants may not be excluded from Tier I operating permit application information that is needed to determine whether the facility is major or whether the facility is in compliance with applicable requirements.*

Section 12.2.1 lists the presumptively IEUs that are excluded from the Tier I renewal application per IDAPA 58.01.01.317.01.a. Section 12.2.2 contains sources and activities that are insignificant based on size or production rate in accordance with IDAPA 58.01.01.317.01.b.

12.2.1 Presumptively Insignificant Activities

The following list contains sources or activities that are presumptively exempt from the Tier I permitting process with a citation of the basis for their IEU designation. The following list of IEUs includes but is **not limited to**:

a. Mobile transport tanks (bowsers) used for storage and transport of used oil and waste fuel with capacities in the approximately 50 gallon to 660 gallon range (317.a.i.2)

b. Natural gas pressure regulator vents (317.a.i.3)

c. Oil/Water Separators used to separate oil from industrial waste waters prior to discharge to the Waste Water Treatment Plant (317.a.i.4, 93, 106, and 109)

d. Storage of pressurized oxygen, nitrogen, carbon dioxide, air, or inert gases (317.a.i.5)

e. Storage of solid material, dust-free handling (317.a.i.6)

f. Internal combustion engines for propelling or powering a vehicle (317.a.i.10)

g. Recreational fireplaces at the NCO Club, housing units, and other locations (317.a.i.11)

h. Process water filtration systems (317.a.i.18)

i. Plant maintenance and upkeep activities (317.a.i.28) including, but **not limited to**:

- Retarring roofs;
- Maintenance of refrigeration and air conditioning equipment with the potential to emit ozone depleting substances (ODSs);
- Insecticide and herbicide application;
- Cleanup of accidental spills of oils, fuel, and other liquid products;
- Architectural and structural painting preparation and painting activities, including such activities required for permanent display aircraft;
- Minor touch-up painting and stenciling of aircraft, vehicles, equipment, and/or parts not located in paint booths by using small hand-held spray cans of coatings; and
- Additional routine maintenance activities.

j. Emulsified asphalt paving of streets (317.a.i.30)

k. Food services (317.a.i.36)

l. Fluorescent light tube and aerosol can crushing (317.a.i.38)

m. Comfort air conditioning or air cooling systems that do not require removal of air contaminants from specific equipment (317.a.i.41)

n. Fire-fighter training exercises (317.a.i.49)

o. Comfort air conditioning, including maintenance of such with the potential to emit ODSs (317.a.i.41)

p. Fire suppression systems and equipment used to train firefighters including fire drill pits (317.a.i.46)

q. Woodworking activities (317.a.i.49)

r. Temporary construction activities, including, but not limited to building demolition, paving the ice hockey rink, and other construction (317.1.i.53)

s. Miscellaneous chemicals, degreasers, and solvent cleaners are used as part of MHAFB routine repair and maintenance shop activities. This activity is not related to the MHAFB primary business activity, and should be considered a presumptively insignificant activity per IDAPA 58.01.01.317.a.i(64).

t. Recycling center (317.a.i.65)

u. Pneumatically operated equipment and air compressors (317.a.i.78)

v. Lime silos (317.a.i.95)

w. Wet sludge handling (317.a.i.100)

x. Polymer tanks and storage devices and associated pumping and handling equipment that is used for solids dewatering and flocculation (317.a.i.103)

y. Process waste water and ponds (317.a.i.109)

z. Small arms firing range (317.a.i.110)

12.2.2 Insignificant Activities Based on Size or Production Rate

IDAPA 58.01.01.317.b defines those emission units that are insignificant based on size or production rate. These units must be listed in the application, along with documentation necessary to verify their insignificant status. Table 12.2.2-1 lists the IEUs based on size or production rate followed by citation(s) of the basis for their IEU status. The documentation necessary to verify the IEU status of each of the units is contained in Sections 12.2.2.1-2 through 12.2.2-14.

Definitions of the Idaho applicable regulations are presented below that apply to each IEU:

- ***IDAPA 58.01.01.317.01.b.i(1)*** *Operation, loading and unloading of storage tanks and storage vessels, with lids or other appropriate closure and less than two hundred and sixty (260) gallon capacity thirty five cubic feet (35 cf), heated only to the minimum extend to avoid solidification if necessary.*

- ***IDAPA 58.01.01.317.01.b.i(2)*** *Operation, loading and unloading of storage tanks, not greater than one thousand one hundred (1,100) gallon capacity, with lids or other appropriate closure, not for use with hazardous air pollutants, maximum (max.) vp five-hundred fifty (550) mm Hg.*

- ***IDAPA 58.01.01.317.01.b.i(3)*** *Operation, loading and unloading of volatile organic compound storage tanks, ten thousand (10,000) gallons capacity or less, with lids or other appropriate closure, vp not greater than eighty (80) mm Hg at twenty-one (21) degrees C. Operation, loading and unloading of gasoline storage tanks, ten thousand (10,000) gallons capacity or less, with lids or other appropriate closure.*

- ***IDAPA 58.01.01.317.01.b.i(5)*** *Combustion source, less than five million (5,000,000) Btu/hr, exclusively using natural gas, butane, propane, and/or LPG.*

- ***IDAPA 58.01.01.317.01.b.i(7)*** *Combustion source, of less than one million (1,000,000) Btu/hr, if using kerosene, No. 1 or No. 2 fuel oil.*

- ***IDAPA 58.01.01.317.b.i(9)*** *Welding using not more than one (1) ton per day of welding rod.*

- ***IDAPA 58.01.01.317.b.i(14)*** *Combustion turbines, of less than five hundred (500) HP.*

- ***IDAPA 58.01.01.317.b.i(17)*** *Surface coating, using less than (2) gallons per day.*

- ***IDAPA 58.01.01.317.b.i(30)*** *An emission unit or activity with potential emissions less than or equal to the significant emission rate as defined in Section 006 and actual emissions less than or equal to ten (10) percent of the levels contained in Section 006 of the definition of significant and no more than one (1) ton per year of any hazardous air pollutant.*

For completeness, MHAFB has used both actual and potential emission rates to evaluate whether or not a source is insignificant based on emissions per IDAPA 58.01.01.317.01.b.i.30.

12.2.2.1 Insignificant Emission Sources Required to be Listed in this Application

TABLE 12.2.2-1
Insignificant Emissions Unit Based on Size or Production Rate

Insignificant Emissions Unit	Applicable Regulations IDAPA 58.01.01	Appendix
Fuel System/Fuel Dispensing, and Fuel Loading Racks	317.01.b.i.30	D-1
Aboveground Storage Tanks	317.01.b.i.1-3, and 30	D-2
Underground Storage Tanks	317.01.b.i.30	D-3
Turbine Aerospace Ground Equipment	317.01.b.i.30	D-4
External Combustion Sources	317.01.b.i.5 and 7	D-5
Internal Combustion Sources	317.01.b.i.14	D-6
Surface Coating Activities	317.01.b.i.17 and 30	D-7
Explosive Ordnance Disposal	317.01.b.i.30	D-8
Fuel Tank Repair	317.01.b.i.30	D-9
Waste Water Treatment Plant	317.01.b.i.30	D-10
Petroleum Soil Bioremediation Site	317.01.b.i.30	D-11
Welding	317.01.b.i.9	D-12
Composite Sanding Booth Activities	317.01.b.i.30	D-13

12.2.2.1-1 Fuel System/Fuel Dispensing, and Fuel Loading Racks

Gasoline, diesel fuel, and JP-8 is received, stored, and dispensed throughout the Base. The potential emissions associated with storage tanks are discussed in the following paragraphs. However, there are also emissions associated with fuel loading into storage and dispensing from storage. These emissions occur at the retail gas station, Base vehicle refueling station, AGE refueling station, grounds, golf course clubhouse, flightline, Hush House I, and the landfill. Each of these sources has emissions less than 10 percent of the significant level as shown in Appendix D-1.

The retail gasoline station is included herein for information purposes, only. It is not part of the MHAFB "source," as it is not controlled by nor operated by MHAFB personnel, but rather by a non Air Force Department of Defense entity entitled Army Air Force Exchange Service (AAFES). Ambient air emissions from AAFES sources are included in the MHAFB annual emissions inventory. However, these facilities should not be permitted as part of this Tier I operating permit application.

12.2.2.1-2 Aboveground Storage Tanks

Most of the fuel ASTs at MHAFB contain diesel, and a few contain gasoline, JP-8, antifreeze, or used oil. The ASTs are insignificant, based on four different regulations pertaining to size or production rate: IDAPA 58.01.01.317.b.i.1-3, and 30. For convenience, each AST complies with 317.b.i.30 and has emissions less than 10 percent of the significant level as shown in Appendix D-2.

12.2.2.1-3 Underground Storage Tanks

The USTs serve aircraft refueling operations and aircraft defueling operations. Each UST has emissions less than 10 percent of the significant level as shown in Appendix D-3.

12.2.2.1-4 Aerospace Ground Equipment (AGE)

AGE includes generators, air carts, hydraulic test stands, compressors, air conditioners, light carts, heaters, bomb lift trucks, and welders. All of the AGE is mobile, as it must be moved to the aircraft on the flightline and deployed from MHAFB with the squadrons. Region 10 USEPA and IDEQ have concluded that the AGE powered by an internal combustion engine is a "nonroad engine," and not subject to stationary source permitting, and thus need not be included in the Title V permit.

However, turbine AGE is not considered a "nonroad engine." Therefore, emissions are monitored and recorded. Turbine AGE has emissions less than 10 percent of the significant level as shown in Appendix D-4.

12.2.2.1-5 External Combustion (ECOM) Sources

Numerous boilers, furnaces, and other external combustion sources are located at MHAFB that are insignificant based on their heat input rating. These external combustion sources are insignificant for sources with a heat input rating of less than 5.0 MMBtu/hr and that combust natural gas, propane, or LPG. Sources with a heat input rating less than 1.0 MMBtu/hr that operate on No. 1 or No. 2 fuel oil are also included. A listing of these insignificant units are presented in Appendix D-5.

12.2.2.1-6 Internal Combustion (ICOM) Sources

A number of internal combustion engines are used for emergency electrical power or portable power that are insignificant because of their size. These internal combustion sources are insignificant for sources with a power rating of less than 500 hp or 373 kilowatts. In addition, Well No. 11 and Well No. 12 maintain generators that have emissions less than 10 percent of the significant level. A listing of these insignificant units is presented in Appendix D-6.

12.2.2.1-7 Surface Coating

Three non-permitted paint booths are used for surface coating applications. These paint booths are insignificant as a result of the small quantity of paint applied to these sources. These sources have emissions less than 10 percent of the significant level as shown in Appendix D-7.

Other facilities located on the Base only require minor touch-up painting, stenciling, and/or use of small hand-held spray paint cans applied to vehicles, equipment, and/or parts not located in paint booths. These facilities include: munitions inspection and support (Buildings 3016, 3018, and 1340), and AGE (Building 1359). The minor surface coat painting at these

buildings are insignificant activities that use less than 2 gallons per day per IDAPA 58.01.01.317.b.i.17. These surface coating activities are listed in Appendix D-7.

Additionally, these insignificant painting activities could also be classified under plant maintenance and upkeep activities in accordance with IDAPA 58.01.01.317.a.i.28.

12.2.2.1-8 Explosive Ordnance Disposal (EOD)

EOD occurs on an event basis as needed to destroy old, highly unstable chemicals and partially armed munitions. EOD emissions are less than 10 percent of the significant level as shown in Appendix D-8.

12.2.2.1-9 Fuel Tank Repair

Aviation fuel tank (cell) repair occurs in buildings 1332 and 1335. The emissions from this activity are less than the 10 percent of the significant level as shown in Appendix D-9.

12.2.2.1-10 Waste Water Treatment Plant

In 1997, MHAFB completed construction and began operation of a 1.5 million gallons per day WWTP. The emissions from the WWTP are less than the 10 percent of the significant level as shown in Appendix D-10.

12.2.2.1-11 POL Soil Bioremediation Site

Bioremediation of petroleum, oil, and lubricants (POL) is performed in several bioremediation zones at MHAFB. MHAFB considers these activities to be "temporary construction activities" and thus presumptively insignificant per IDAPA 58.01.01.317.a.i(53). For informational purposes, emissions are provided from the bioremediation site that are less than the 10 percent of the significant level as shown in Appendix D-11.

12.2.2.1-12 Welding

The total amount of welding rod used on the Base varies from 100 to approximately 300 pounds per year. The quantity of welding rods used in calendar year 2005 was approximately 225 pounds per year, as shown in Appendix D-12. This is well below the significant threshold per IDAPA 58.01.01.317.b.i(9) of 1 ton per day.

12.2.2.1-13 Composite Sanding Booth Activities

MHAFB periodically conducts sanding activities in a composite booth inside Hangar 1330. The composite sanding booth utilizes a natural gas comfort heater rated at 2.196 MMBtu/hr. The heater blows warm air down in front of the booth. The warm air is drawn in through the front of the booth and disperses across the inside of the booth through a wall of particulate fabric filters before venting outside. Emissions generated from the sanding activities combined with the natural gas-fired comfort heater are less than 10 percent of the significant level as shown in Appendix D-13.

MHAFB periodically conducts hand sanding and/or de-painting operations on aircraft and other equipment. The hand sanders used in these operations are similar to typical orbital hand sanders typically used in a hobby woodworking shop; but equipped with a special shroud around the sander, vacuum holes in the sanding pad, and the HEPA-filtered vacuum system with a 5-gallon dust collection tank to capture more than 97 percent of the particulate generated from the sanding operation. The PM-10 emissions from these sanding operations are less than the significant threshold of 1.5 tpy or below regulatory concern and maintain a Category I Exemption in accordance with IDAPA 58.01.01.222.01.

Additional Exempt Facilities

12.2.2.1-14 Offsite Activities

For informational purposes, MHAFB operates a few additional facilities located near, but not contiguous or adjacent to the Base. The facilities include: Saylor Creek Bombing Range, Grasmere Electronic Combat Site, Electronic Training in Idaho (ETI) sites, and the Offsite Small Arms Range.

IDEQ has determined that the Saylor Creek Bombing Range is under common control but not contiguous or adjacent to the Air Force Base; and therefore, it is not considered a part of the Base for the purpose of Tier I permitting. A copy of the IDEQ determination is included in a letter from Brian R. Monson, IDEQ, to Carey Felzien, CH2M HILL, dated February 1, 1995 (see Appendix D-14).

A precedent has been established to exclude a facility that is under common control but not contiguous or adjacent to one another. Therefore, Grasmere Electronic Combat Site, the ETI sites, and the Offsite Small Arms Range are not included in this Tier I renewal application.